



OFFICE OF SURFACE MINING

2003 Annual Evaluation Summary Report

(October 1, 2002 to June 30, 2003)

for the Regulatory and Abandoned Mine Lands Programs

Administered by the State of

INDIANA

**Prepared by:
Indianapolis Field Office
Office of Surface Mining**

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Cover Page is a photo of wetlands established at Black Beauty Coal Company's Deer Ridge Mine

I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior. SMCRA provides authority to OSM to oversee the implementation of, and provide Federal funding for, State regulatory and abandoned mine land reclamation programs approved by OSM as meeting the standards specified in SMCRA. This report contains summary information regarding the Indiana program and its effectiveness in meeting the applicable purposes of SMCRA as specified in section 102. This report covers the period of October 1, 2002, to June 30, 2003. Detailed background information and comprehensive reports for the program elements evaluated during the period are available for review and copying at the Indianapolis Field Office (IFO) of the OSM.

The following acronyms appear in this report:

ACSI.....Appalachian Clean Streams Initiative
 AML.....Abandoned Mine Land
 AOC..... Approximate Original Contour
 AVS.....Applicant Violator System
 EY Evaluation Year
 GIS..... Geographical Information System
 IDOR..... Indiana Department of Natural Resources, Division of Reclamation
 IFO..... Indianapolis Field Office of the OSM
 NOV..... Notice-of-Violation
 OSM.....U. S. Department of the Interior, Office of Surface Mining
 PSFWSC..... Patoka South Fork Watershed Steering Committee
 RC&D.....Resource Conservation and Development Area
 SMCRA..... Surface Mining Control and Reclamation Act of 1977, PL 95-87
 TCO. Temporary Cessation of Operations

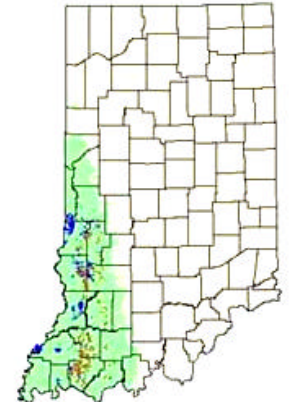
II. Overview of the Indiana Coal Mining Industry

Coal Resources

The Indiana coalfield covers an area of about 6,500 square miles in west-central and southwestern Indiana (see map at right). It constitutes the eastern edge of the Illinois Coal Basin, a basin that covers parts of a three-state area, including most of Illinois and western Kentucky. Indiana coal seams dip about 25 feet per mile to the west toward the center of the Illinois Coal Basin. This configuration largely accounts for the location of surface and deep mines in Indiana.

Twenty counties within, or partly within, the Indiana coalfield have significant coal reserves. Currently, however, coal is being mined in only 11 counties. Indiana has an approximate 34 billion ton coal reserve, 18 billion tons of which are recoverable using current technology. Of the recoverable coal, about 16 billion tons can be extracted through underground mining and 2 billion tons through surface mining.

Coal production in Indiana comes from beds within the Pennsylvanian System. All coals are ranked as high-volatile, bituminous coal, and are characterized as follows:



Index map of Indiana showing the coal-bearing rocks of the Pennsylvanian System in green, underground coal mines in blue, and surface coal mines in brown.

Indiana Coal Values

<i>Value</i>	<i>High</i>	<i>Low</i>
Moisture Content	15%	5%
Heating Value In BTU	12,000	10,500
Ash Content	20%	5%
Sulphur Content	6%	0.5%

Historical Highlights

Coal was first discovered in Indiana along the Wabash River in 1736, and was reported in land surveys and its location marked on maps by 1804. Small-scale surface mining along exposed coal seams was done at first by pick and shovel and later by horse and scraper. The first underground mine shaft in Indiana was developed in 1850 at Newburgh, Indiana, and by 1852 both shaft and slope mines had become common. In 1840 production was around 9,700 tons, and by 1918 at the close of World War I, production in Indiana had reached over 30,000,000 tons per year. With the advent of steam-powered equipment, surface mining began on a large scale and since that time has remained a strong and viable industry.

Coal Mining

While underground mining was once the major method of coal extraction in the state, in recent decades Indiana coal has come primarily from surface mines. As technology advanced from steam-powered equipment in the first half of the twentieth century, to diesel, and then to electric power, so the size of equipment advanced. Twenty-five years ago coal was usually surface mined at depths of no more than 65 feet. Today surface mining equipment is capable of removing overburden to mine coal seams approaching 200 feet in depth.

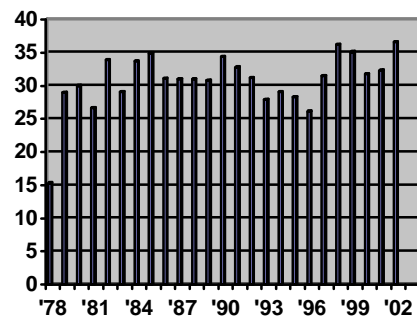


However, because a large portion of the surface reserves has already been removed, in the future surface mining activities are expected to decline, accompanied by a resurgence of underground mining in deeper coal beds. In fact, this resurgence is already evident. In 1990, 5 percent of Indiana's coal production was from underground mines; in 1995, 13.9 percent; and in 2002, 23 percent of total tonnage came from underground mining.

Indiana Coal Production

Annual coal production in Indiana during the last 5 years has averaged a little over 30 million tons, with a value of about \$600 million. According to the National Mining Association survey of major producers, two of the nation's major underground coal mines are located in Indiana, producing a total of 3.8 million short tons of coal in 2002, and four major U.S. surface mines, producing 13.5 million short tons of coal in 2002.

In 2001, Energy Information Administration figures indicate that the Indiana coal industry employed a workforce of 2,543 directly, and thousands more in the various support and associated service industries.



INDIANA COAL PRODUCTION
BY YEAR
(Millions of Tons)

Uses of Indiana Coal

Most of Indiana's coal is used by the electric utility industry, which burns a combination of Indiana coal, and lower sulfur, out-of-state coal to meet current air pollution emission requirements. In 2000, the total electric generation in Indiana was 127,970 million kilowatt hours. Coal-fired power plants account for 94% of Indiana power generation and consume nearly 59 million tons of coal, according to the Energy Information Administration. Additionally, by law, Indiana state institutions heating with coal-fired boilers are required to use Indiana coal. Other consumer uses includes coke plants, residential and commercial users, other industrial customers, and foreign export.

III. Overview of the Public Participation Opportunities in the Oversight Process and the State Program

The *Indiana Prime Farmland Team* consists of representatives from the Natural Resources Conservation Service, the Daviess County Soil and Water Conservation District, the Sullivan County and Purdue University Cooperative Extension Service, the Indiana Farm Bureau, the Indiana Division of Reclamation (IDOR), an Indiana Coal Company, the Sierra Club, a private consultant, and the OSM. This team meets periodically to address prime farmland issues.

During evaluation year (EY) 2003, the *Patoka South Fork Watershed Steering Committee*, (PSFWSC) a group formed under the Appalachian Clean Streams Initiative, (ACSI), met periodically to develop and implement projects to improve the Patoka River South Fork Watershed. Past coal mining activities, oil and gas operations, and agricultural practices have had a strong negative impact on this watershed. Both OSM and IDOR are represented on this committee.

The Indiana Coal Council is the primary representative of the coal industry in the State, while the environmental community is primarily represented by the Hoosier Environmental Council. The IFO maintains as needed contacts with these organizations, their members, and citizens throughout the evaluation year.

The IDOR successfully implements the required public participation provisions of all aspects of its regulatory and abandoned mine land (AML) programs. In addition to addressing the required provisions of public participation, Indiana has taken a pro-active position regarding outreach and the distribution of information to all stakeholders. Under its "Operation Excellence" Program, Indiana established a goal "To create a greater public awareness of, and appreciation for Division programs through the use of various written, audio, and visual media."

The following informational publications are present on the IDOR web site as well as through phone or mail and personal contact:

Citizen's Guide to Indiana's Abandoned Mine Land Program,

*Citizen's Guide to Coal Mining and Reclamation in Indiana,
 Citizen's Guide to Land Reclamation,
 Division of Reclamation Annual Report, and
 Division of Reclamation Strategic Plan.*

The IDOR site also provides abundant information about the mission of the agency, the programs administered by the agency, and tools and publications available to the public.

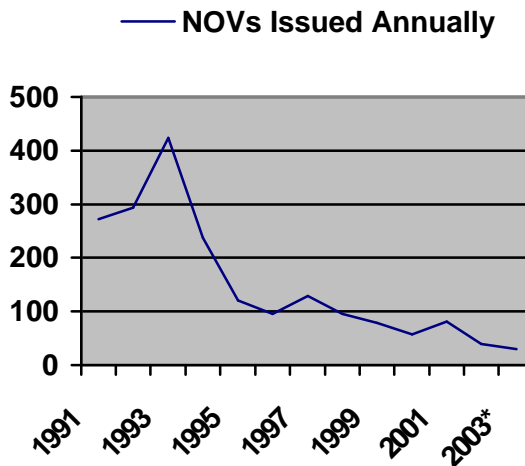
Indiana continues to be pro-active in meeting controversial situations head on. It routinely conducts meetings and gathers public input when significant questions arise about a program area under its jurisdiction.

All of this is part of an overall strategy by the State directed toward better citizen understanding and involvement in the Regulatory and Abandoned Mine Land Programs.

IV. Major Accomplishments/Issues/Innovations in the Indiana Program

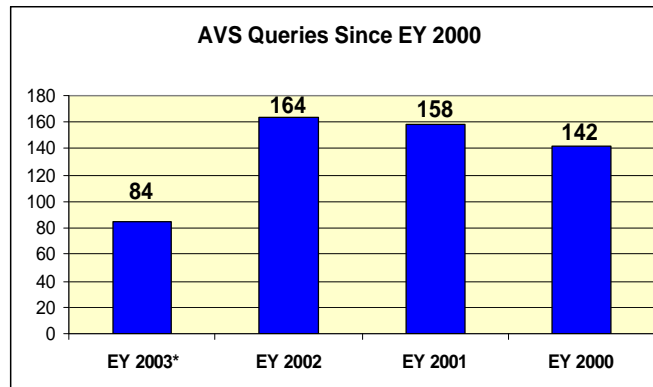
Indiana maintained its Regulatory Program in EY 2003 to assure that the approved program remains effective in providing protection from the adverse effects of surface coal mining operations. Indiana also maintains a cooperative agreement with OSM to administer the State program requirements on federally owned land. Indiana has proposed several amendments to assure that its program remains timely and as effective as the Federal requirements.

Indiana administers its program in a way that effectively protects citizens and the environment from adverse impacts resulting from surface coal mining activities. Since 1991, environmental compliance by coal mining operators has significantly improved as can be seen in the decrease of Notice-of-Violations (NOV) issued from 1991 to 2003. The data presented for 2003 represents only nine months of data due to the shortened evaluation year. The table to the right graphically illustrates this compliance increase.



Applicant Violator System (AVS)

During the reporting period the IDOR complied with provisions of the April 1, 1991, Memorandum of Understanding with OSM and continues to comply with provisions requiring AVS checks of contractors for Abandoned Mine Lands. Indiana continues to update ownership/control information on a timely basis. With the evaluation year being shortened to 9 months the number of AVS queries is only about half of what they were for 12 months in EY 2002.



Clean Stream Activities

Indiana continues to be an active participant in the ACSI. Historically, the IDOR has dealt primarily with two organizations that address clean streams projects. The southern portion of the Indiana coal field is represented by the Four Rivers Resource Conservation and Development Area (RC&D) and the northern portion of the Indiana coal field is represented by the Sycamore Trails RC&D. In EY 2002, there were three active ACSI projects located within the South Fork of the Patoka River watershed.

OSM has funded \$569,696 for these three projects, which represents approximately 52 percent of the total cost of \$1,104,594. There were an average of 11 partners/participants, which contributed the remaining share of the projects' cost.

During the nine-month 2003 Evaluation Year the Indiana AML Program did not start construction on any new Clean Streams projects, nor were any completed during that period. During EY 2003 Clean Streams projects were designed, or in the design process, and construction on others was ongoing or in the process of closeout. Two large projects account for a major portion of Clean Streams funding since 2001. The Indiana Clean Streams Program is considered to be successfully progressing.

Four Watershed Cooperative Agreement Projects are in Indiana. Two of these were closed out, and two were in the process of being closed out in EY 2003.

National Abandoned Mine Land Reclamation Awards

Each year the OSM honors the best examples of abandoned mine land reclamation. The award winners are recognized as a leader in the field of mine reclamation that set the standards of excellence for the future, and help preserve and enhance the quality of American life. Previous Indiana AML award recipients are:

Indiana AML Award Winners

<i>Year of Award*</i>	<i>AML Reclamation Project</i>
1992	Boonville Hospital RAMP Project
2000	Midwestern Reclamation Project
2002	Sunshine Mine

* Due to shortened EY, 2003 award recipients have not been announced as of June 30, 2003

The AML award recipients were recognized for:

- Reclaiming a site with a 35-foot highwall and a water-filled pit, both hazardous attractive nuisances to children who live nearby and attend the elementary school that borders the abandoned mine site. One side of the pit area, near a residential area, was caving in, and the other side was sloughing, posing a threat to an adjacent Hospital. In reclaiming the site, the abandoned mine hazards were eliminated and turned the site into a useful and attractive resource for the community.
- The reclamation of a 270-acre site by eliminating 4,400 feet of dangerous highwalls, coal refuse and spoil, plus 30 million gallons of acid water from slurry ponds. Coal combustion by-products were used to enhance the quality of water discharged from the site.
- Elimination of a 25-acre area of gob, slurry, mine drainage, and derelict buildings. The project included regrading refuse, spreading 100 tons per acre of agricultural lime, covering the material with four feet of soil, and planting vegetation. In addition, almost 5,000 linear feet of erosion control features were installed. Most drainage from the reclaimed site has been directed into a small wetland that improves site aesthetics, eliminates off-site sedimentation, and enhances water quality downstream.

Active Mining Reclamation Awards

The Indiana Program has consistently been one that has encouraged operators to mine and reclaim responsibly. The positive interaction between the regulators and the industry is evident by the number of OSM Reclamation Awards that Indiana has received over the

years. Since the inception of the OSM awards, the accomplishments of the following Indiana operators have been recognized:

<i>Year of Award*</i>	<i>Company</i>	<i>Mine</i>
1988	Black Beauty Coal Company	Arlen
1989	Vigo Coal Company	Discovery
1990	Solar Sources	Skypoint
1990	Fowler Excavating	Bullock
1991	Foertsch Construction	Little Sandy
1992	Solar Sources	Pit 12
1997	Solar Sources	Pit 12 ¹
1999	Amax Coal Company	Ayrshire
2000	Black Beauty Coal Company	Columbia
2001	Triad Mining	Switz City
2001	Kindill Mining	Mine 2
2001	Black Beauty Coal Company ²	Mines in Indiana and Illinois
2002	Solar Sources	Skypoint ³

1 HALL OF FAME AWARD

2 DIRECTOR'S AWARD

3 25th ANNIVERSARY GOLD AWARD

* 2003 award winners are not included due to awards not given until after the close of the Evaluation Year (June 30, 2003)

Examples of the outstanding reclamation that past Reclamation Award winners were recognized for are:

- Exemplary soil replacement, and for restoring the site to farmland, which is now producing a variety of crops, including hay, soybeans, and wheat;
- Eliminating abandoned mine problems, and restoring productivity to agricultural land. Wetlands were created and trees and shrubs were planted to provide a diverse wildlife habitat.
- The development of a Wildlife Management Area, managed to promote fish, wildlife, and related environmental values
- Special soil handling methods were employed to meet productivity standards resulting in exemplary post-mining agricultural land
- Reclamation that created some of the best reforestation and wildlife habitat to be found on reclaimed coal mine lands.
- Creating a unique fish and wildlife habitat which will be used for public recreation activities such as hunting, fishing, hiking, biking, and bird watching

- Exceptional mining and reclamation by a small coal operator (under 100,000 tons per year) while returning the mine site to its pre-mining usage for row crops, pasture, and forestry, after skipping just one growing season during mining.



V. Success in Achieving the Purposes of SMCRA as Determined by Measuring and Reporting End Results:

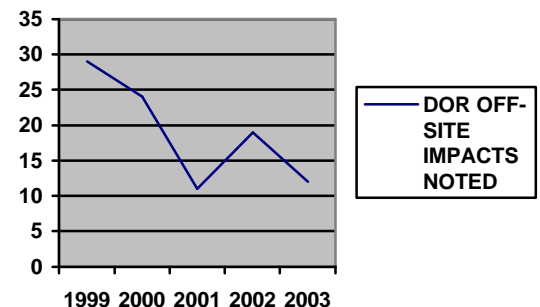
Performance standard based reviews, along with public participation evaluations provide the IFO with a broad picture of:

- The number and extent of observed off-site impacts;
- The number of acres that have been mined and reclaimed and which meet the bond release requirements for the various phases of reclamation; and,
- The effectiveness of customer service provided by the State.

Individual topic reports, available in the IFO, provide a detailed analysis and information concerning how the evaluations were conducted and how the conclusions were reached.

A. Off-Site Impacts:

A primary focus of SMCRA is the protection of the public, property, and the environment from adverse effects of active coal mining operations. The goal, therefore, is that there be no impacts, or no greater than minimal impacts, outside the permit area. To accomplish this goal, State programs strive to continually decrease the occurrence of off-site impacts.



The IFO and IDOR conducted a joint evaluation in EY 2003 to determine the effectiveness of the State program in protecting the public and the environment from off-site impacts caused by surface mining and reclamation operations. Conclusions were based on data from IFO complete oversight inspections along with data reported by the State.

The IDOR inspected a total of 137 inspectable units (a total of 1653 individual inspections were conducted) in EY 2003, and found 12 off-site impacts on eight inspectable units. Of the 137 inspectable units, 129 (94.1%) were absent any off-site impacts. The 12 off-site impacts observed by the IDOR during this evaluation year are less than the previous year, but the percentage of sites with no off-site impacts was the same. The IDOR observed 19 off-site impacts in EY 2002, 11 in EY 2001, 24 in EY 2000, and 29 in EY 1999.

It should be noted that, even though ideally the goal is not to have any incidents occur, the realistic goal in OSM's FY 2003, Annual Performance Plan is to maintain the percentage of sites free of off-site impacts at 94 percent – a goal the IDOR has slightly exceeded.

The numbers of off-site impacts the IDOR observed during the evaluation year were few. Most observations were minor hydrologic impacts on land and water resources.

In EY 2003, the IFO observed nine off-site impacts in the course of making complete inspections on 41 inspectable units. The IFO issued two Ten-Day Notice in EY 2003 relating to off-site impacts. Seven violations observed by the IFO, which had an off-site impact, were previously addressed by the State. The IFO found 82.9% of the inspectable units it inspected were absent any off-site impacts.

Although the above narrative speaks to the customary reporting of off-site impacts, citizen complaints alleging such impacts is also relevant to a review of the state's role in protecting society and the environment from the adverse affects of coal mining. The IDOR responded to 31 citizens complaints in EY 2003. Twenty-one of those alleged structural damage due to blasting. The final responses to those complaints were conclusions that there was not sufficient evidence to demonstrate a connection between the blasting operations and damage to the properties. There were seven water well complaints due to mining, one drainage control concern, and one blasting that were investigated. In one water well complaint, there was evidence to indicate that mining activity had caused a diminution of quality of water and the operator replaced the well. The drainage control concern resulted in the Division issuing a violation to the operator. A total of 15 of the complaints received involved two large mining operations located near small towns and cities.

The IFO concludes that the insignificant numbers of identified on-the-ground impacts and violations substantiate that the State is administering a successful surface mining regulatory program. The IFO recommends that the State continue to ensure mining is being conducted in such a manner.

B. Reclamation Success:

Thousands of acres of land affected by surface coal mining are successfully reclaimed each year as noted in Table 5 of this report.

The IFO conducted site visits at 10 permanent program surface mines and evaluated 1,587.18 phase I acres, 1,114.97 phase II acres and 780.8 phase III acres that the IDOR subsequently released. The IFO agreed with the IDOR that these acres met the reclamation requirements to be eligible for release of bond. Therefore, the IFO concludes that the IDOR is ensuring successful reclamation on lands affected by surface coal mining operations.

Specifically, the following elements were evaluated for successful reclamation:

Land Form/Approximate Original Contour and Soil Replacement

The criterion for determining whether reclaimed lands are reconstructed appropriately is whether it has been returned to its approximate original contour (AOC), including soil replacement. For the purposes of this evaluation Phase I bond releases were used as the indicator that the AOC had been achieved and soils had been replaced. For the evaluation period, approximate premining contour, including soil replacement, was achieved on 4,964.75 acres. To date approximately 93,153 acres have met the criteria for, and have been granted, Phase I bond release.

Surface Stability and Establishment of Vegetation

For the purposes of this evaluation, surface stability and the establishment of vegetation were measured by the acres of Phase II bond released. For EY 2003, Indiana was successful in achieving surface stability and in establishing vegetation on 3,453 acres.

Based on the IFO analysis of data supplied by the IDOR, between 1983 and June 2003, approximately 82,081 acres of mined land have met the criteria for Phase II bond release.

Establishment of Post Mining Land Use and Productivity Restoration

Post mining land use was achieved by establishing successful and appropriate vegetative cover. This includes restoring productivity, where appropriate. The IFO measured this element of reclamation success by

the number of acres receiving Phase III bond release. For the evaluation period, 12 permits containing 3,409.96 acres had Phase III bond released.

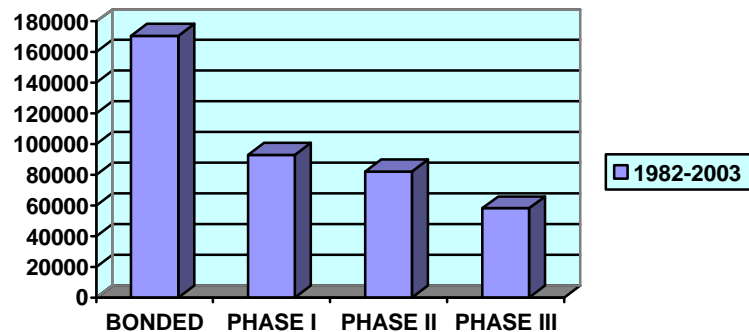
Based upon the IFO analysis of data supplied by the IDOR, between 1983 and June 2003, 58,199 acres have been fully reclaimed and the post mining land use and appropriate vegetative cover achieved, including restoration of productivity where appropriate.

Hydrologic Reclamation

The successful restoration of surface and groundwater quality and quantity was measured by the accounting of acres of Phase III bond release achieved. Indiana released 3409.96 acres for Phase III during the evaluation period and a total of 58,199 acres since 1983.

Contemporaneous Reclamation

The OSM Directive, REG-8 defines contemporaneous reclamation to be the difference in time between when lands are disturbed and when they achieve phased bond release. There has been considerable discussion about whether this is a valid measure of contemporaneous reclamation. This discussion has taken place both within OSM and with the various State Regulatory Authorities. The results shown in the chart and table below represent the best effort under REG-8 at assessing contemporaneous reclamation.



A general picture of how successfully reclamation is staying current with mining was made by the IFO by comparing the number of acres affected to the number of acres on which phase III bond was released by the IDOR from November 1, 2000, to October 31, 2002. For measurement of contemporaneous reclamation, the IDOR provided IFO data showing that 8779.9 acres were affected, and 18,777.11 acres were phase III released

Acres of Bond Released 1983 - 2003

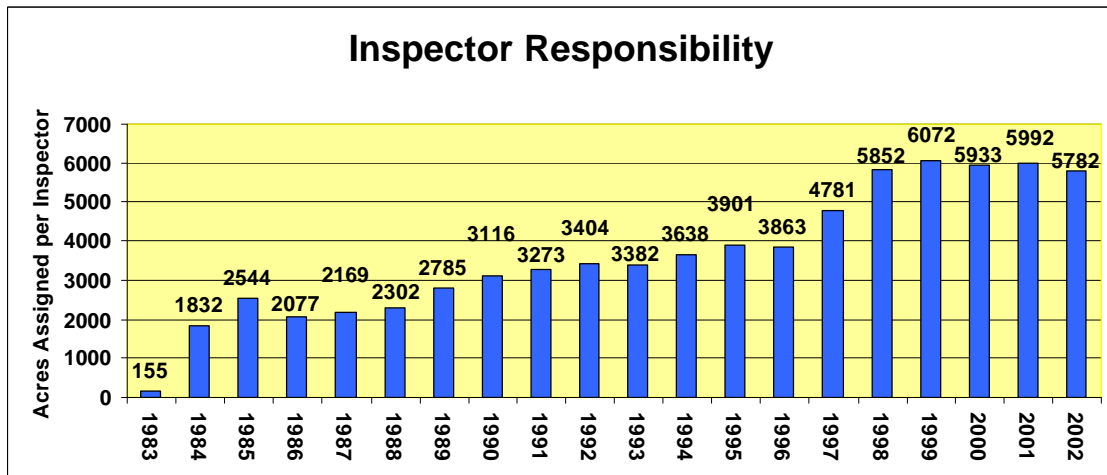
YEAR	BONDED	PHASE I	PHASE II	PHASE III
1983	3831	0	0	0
1984	42022	178	0	0
1985	18698	461	0	0
1986	7481	3069	0	0
1987	7463	5147	3708	0
1988	4815	4789	3365	0
1989	6544	5151	5769	0
1990	7501	2966	2549	0
1991	5219	3250	2006	459
1992	4335	4908	2898	298
1993	4292	2481	1915	1619
1994	3833	3148	4095	3112
1995	7150	5172	2778	2636
1996	2451	4548	3777	3517
1997	7981	7734	4814	3725
1998	14107	8549	8080	5500
1999	4780	4403	6110	7706
2000	5616	9914	6491	6544
2001	4566	7316	14386	11268
2002	6102	5004	5887	8408
2003**	1783	4965	3453	3410
TOTAL	170490*	93153	82081	58199

*THIS NUMBER DOES NOT REFLECT THE REMOVAL OF ACREAGE RELEASED AS NOT AFFECTED, NOR THE ACRES REPERMITTED AND BONDED. THE ACTUAL FINAL BONDED ACREAGE CAN BE SIGNIFICANTLY SMALLER THAN THIS.

** EY2003 IS FOR A 9 MONTH PERIOD (OCTOBER 1, 2002 – JUNE 30, 2003)

during the period November 1, 2000, to October 31, 2002. More than twice as many acres were released as were affected during this period which may be an indication of contemporaneous reclamation. Perhaps a more accurate indicator that reclamation is staying current with mining, is that IFO found no violations of the requirement for contemporaneous reclamation while making complete mine site evaluations in EY2003.

The increasing bonded acreage inventory has added substantially to the administrative costs of the regulatory authority. The current inventory of bonded acreage has diminished slightly due to the number of acres that have been granted final bond release being greater than the number of new acres bonded during the EY. This has allowed the IDOR to adjust staffing levels to provide improved customer service. The average number of acres assigned to inspectors has stabilized since 1998. The following chart captures the change in inspector responsibility from 1983 through 2002.



C. Customer Service

The 2002 Minerals Education Workshop was held on November 1-2, 2002 at Rose-Hulman Institute of Technology in Terre Haute, IN. This was the third annual workshop sponsored by the Division. Geared for teachers from kindergarten through middle school, this workshop provides the opportunity to learn about many aspects of mining, electricity, and information on minerals and their impacts on our daily lives. The first day was devoted to hands-on activities that the teacher can use immediately in the classroom. Division staff, a guest from the Illinois Department of Mines and Minerals, and a retired State Geologist of Missouri, taught the sessions. All activities presented during the day, along with others, were compiled into a teacher's manual of lesson plans for all age groups. Teachers took home a large plastic tote full of materials to facilitate their teaching of the subjects they learned. A tour of the Black Beauty Coal Company Farmersburg Mine was given on the second day of the workshop. This tour allowed the teachers to see the activities from day one used in real world situations.

VI. OSM Assistance

The primary mode of OSM assistance to Indiana is through grant funding. Table 9 indicates the amount of grant funding to Indiana for operation of the regulatory program. OSM provides 50% of the funding necessary for the Regulatory Program and 100% of funding necessary for the Abandoned Mine Land Program in Indiana.

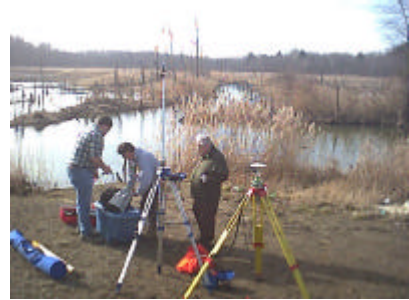
Additionally, assistance is provided as outlined below:

- Technical training courses are offered by OSM throughout the year, which address technical and programmatic aspects of mining and reclamation. These

courses are provided for OSM and State participants as well as industry and others on a space available basis.

- OSM continued to work with the IDOR and the U.S. Fish and Wildlife Service in EY2003 to develop a set of mining related guidelines for protection of Indiana bats on areas proposed for mining in Indiana. The project will continue into 2004.
- OSM provides the Technical Information Processing System including local workstations and software for State use. The OSM also provides training and support. Indiana uses the system for a variety of tasks related to permit application processing and other technical or engineering evaluations. The technical staff continues to work with the State to develop and implement an electronic permitting program.
- Informal discussions occur between OSM and State management and staff that result in a good working relationship. Informal assistance is provided regarding field or implementation issues on a continual basis.
- The Director of the IFO sits on the Board of the Indiana Society for Mining and Reclamation. This is a diverse group that includes membership from OSM, the IDOR, Department of Commerce, citizens, industry, academia and power industries. The group's focus is to identify topics of interest and to sponsor a Technology Transfer Seminar each year. The Technology Transfer Seminar is well advertised and attended by participants from all factions of the public and private sectors.
- The OSM participated with Indiana on a Prime Farmland Team that is focused on addressing the technical aspects of prime farmland restoration. The team is composed of a representative of the coal mining industry, a private consultant, the Natural Resources Conservation Service, Purdue University Agronomy Department, Purdue University Cooperative Extension Service, the Sierra Club, the Daviess County Soil and Water Conservation District, the Indiana Farm Bureau, besides OSM and the IDOR. The self-directed team works on issues related to reclamation of agricultural lands. These issues include management methods, demonstration of successful reclamation practices, and regulatory requirements. The team is currently assisting in developing a method to more accurately classify and map reclaimed mine soils and is in the initial phases of developing a guidance brochure about the management of post-mine agricultural lands. In addition, the team sponsored a Prime Farmland Reclamation Field Day at the Vigo Coal Company's Cypress Creek Mine near Boonville, Indiana on July 30, 2003.

- OSM is assisting the PSFSC with the design of a low water dam for AMD remediation purposes. The proposed dam will replace an abandoned beaver dam approximately 30 feet long with an earth embankment to maintain a 25-acre wetland. A site visit was performed in January 2003. A draft design was sent to PSFSC in early May 2003.



- The IFO works closely with the Steering Committee for the improvement of the South Fork of the Patoka River. This group functions and is partially funded through the Appalachian Clean Streams Initiative. OSM assisted Indiana and the PSFWSC with map preparation, scanning, geo-referencing and geographical information system (GIS) work on the Augusta Lake project. The mapping project was completed in December 2001, and provided to the PSFWSC in 2002.
- OSM has a member on the IDOR AML Subsidence Team, which was formed during 1999 and continues today. The focus of the team is to develop methods for prioritizing underground mined areas and analyzing existing technology for subsidence prevention efforts. One result of the team's efforts is a contract to establish a subsidence monitoring and warning system at the Loge Elementary School in Boonville, Indiana. Another result is an ongoing effort by the Indiana Geological Survey to use remote sensing and GIS for prioritizing subsidence risk over abandoned underground mines. During May, the team began working on an information booklet entitled "Living Near Indiana Coal Mines" for distribution to property owners and developers in mined areas. The project will continue into EY 2004.
- The Indiana Division of Reclamation requested assistance in designing an acid mine drainage treatment wetland at the Enos tipple and gob pile area of the Patoka watershed. OSM is evaluating a number of possible treatment options and will present the results of that evaluation to Indiana during the 2004 EY.

VII. General Oversight Topic Reviews

In addition to the off-site impact and land restoration reviews, OSM conducted oversight activities in the program areas listed below. Copies of oversight documents relating to these topics may be obtained at the IFO office or by requesting specific reports by mail at the following address:

Office of Surface Mining Reclamation and Enforcement
Indianapolis Field Office
575 North Pennsylvania, Room 301
Indianapolis, Indiana 46204

The IFO can also be contacted by E-mail at IFOMAIL@osmre.gov.

Complete Inspections: The workplan in this area was designed to allow the IFO to gather information, which would then be used to generate an overview of the “on-the-ground” impacts of surface coal mining and reclamation. A sample of 50 complete inspections was targeted with 41 of them being completed during the review year. As indicated in the off-site impact section above, the inspections indicated that Indiana maintains and administers an effective program that meets all SMCRA requirements.

Temporary Cessation of Operations: Mines that have been inactive for many years raise the question of whether they are meeting the intent of SMCRA that mining is only a temporary use of the land. The IDOR and IFO agreed to conduct a joint review beginning in EY 2002, to determine if there is anything that can be done to reduce the number of mines that have been in temporary cessation of operations (TCO) and/or grading deferred for many years.

Federal and State rules pertaining to TCO do not provide guidance regarding the amount of time mines can remain in TCO or grading deferred. However, the IDOR grants grading deferral for one year at a time and reviews reasons given for extensions of the deferrals each year. Also, the Natural Resources Commission has a policy that a grading deferral for more than one year requires the acreage be bonded at the maximum rate of \$10,000 per acre to protect the State.

As part of the review, the IDOR/IFO review team agreed that the IDOR would send letters to the four mines in Indiana that have been in TCO and/or grading deferred for over five years for the purpose of obtaining detailed information about plans for future mining or reclamation at those sites. The team hoped IDOR letters of inquiry might also prompt some mining or reclamation. Responses to all of the letters were received and three of the four responses reiterated the facts of the current deferrals, which seemed to the team to be reasonable and justified. The other response included an intention to revise their reclamation plan and schedule. The IDOR believes reclamation activities at inactive slurry disposal areas will continue there this year. There are few Indiana mines in TCO and/or that have been grading deferred for a long time and the acres not yet reclaimed there are relatively small. Even so, the team recommends the IDOR continue to monitor those sites and encourage those permittees to begin mining or reclamation as soon as possible.

Sedimentation/Drainage Control Review: An important tenet of the authors of SMCRA is that surface coal mining should be conducted in a responsible manner that minimizes the effects of coal mining on the surrounding environment. In addition, they also recognized that there might be more than one way for operators to accomplish the requirements of specific aspects of SMCRA. The use of alternative sediment control measures is an example of this premise.

To determine if the use of alternative sedimentation control measures in lieu of passing all drainage from a coal mine’s disturbed area through a sediment pond is being

effectively implemented by the mine operators in Indiana, a review of the use of alternative sediment control measures was included in the IDOR/IFO Performance Agreement for EY2003.

The effectiveness of these measures was observed during the IFO's complete inspections of surface and underground mine operations during the evaluation year. The use of a vegetation filter was the predominate method employed by the permittees to ensure that offsite sedimentation did not occur. In a few instances, gravel or crushed rock, filter fabric, and straw bales were used to stabilize the areas. This review found that the IDOR is fulfilling its responsibility to ensure that additional contributions of sediment to offsite areas are not occurring when drainage leaves the permitted areas from alternative sediment control areas. The IDOR is encouraged to ensure that coal mining operators properly implement and maintain the alternative techniques utilized to protect offsite areas from the adverse affects of sedimentation.

Blanket Declaration of Pit Subsidence Emergency Projects: During the 2003 evaluation year, the Indiana AML Reclamation Program consummated an agreement providing "blanket" emergency approval for eligible pit subsidence projects. This agreement encompassed the OSM Indianapolis Field Office, the Indiana AML Program, and the governmental agencies of jurisdiction ensuring National Environmental Policy Act compliance.

The Indiana agreement, patterned after existing Alabama and Kansas Program "blanket agreements", was established for a one-year period beginning February 2, 2003. The agreement may be extended at the end of the current performance period, if all parties consent.

This "blanket emergency declaration" has resulted in a streamlined process of benefit to the State since the majority of emergency projects in Indiana have historically been pit subsidence problems. The State Program estimates this agreement generally reduces response time by one day, depending on the circumstances, and has allowed the AML Program to more confidently communicate to land owners a definite project schedule. The blanket approval has also benefited the Field Office, especially with respect to emergency requests that may come at inopportune times. During the period the Indiana emergency declaration agreement was in effect - February 2003, through June 30, 2003, the end of EY03 - eight pit subsidence projects were completed.

Evaluation of Reclamation Vegetation Success: This evaluation began in EY 2003, at the State's request, with both State Program and OSM-IFO staff involved in the effort. Because of the shortened 2003 oversight year, it became necessary to carry this evaluation over into EY04. The objective of this ongoing activity is to determine possibilities for enhancing efficiency and effectiveness of the AML Program's reclamation revegetation efforts.

Program managers anticipate that an examination of completed projects of varying ages, and seeding and management regimens, will help identify the most successful and cost

effective reclamation strategies. Therefore, it is necessary to review a fairly broad range of reclamation sites, and although several sites were visited in EY 2003, much more data is required to draw valid conclusions.

In EY03 the evaluation team developed sampling methodology, identified sites, and began conducting field surveys. Surveys involve plant species identification, including volunteer species, estimating ground cover, determining survival of original plantings and diversity of species, and evaluation of over-all effectiveness in relation to existing post-reclamation land use. As opposed to the AML tree planting evaluation completed in 2002, this evaluation is concerned with all plant species. The team expects to evaluate its findings and provide recommendations in a report for program management consideration in EY 2004.

Study of Residential Development on Abandoned Lands: At the State's request, the EY03 Performance Agreement included a joint Indiana AML Program-OSM/IFO study of the issues surrounding an increasing trend toward residential development on unreclaimed abandoned mine lands. This study was to examine the implications of site development problems associated with building dwelling houses on potentially hazardous mined land, and the AML Program's role and responsibilities in relation to such occurrences.

During EY03 the AML Program determined that, at a minimum, it should deal with the issue from an educational outreach standpoint. People should be aware that choosing to build a house on certain abandoned mine sites places them and their property in jeopardy the same as building in floodways and on unstable shorelines. Consequently, a booklet was drafted to serve as a guide for landowners, developers and local officials to better assess abandoned mine lands before building. The booklet would be distributed as widely as possible in the coal region, especially to county commissioners, planners, city engineers, realtors, county Soil and Water Conservation Districts, and developers.

At the close of the shortened, nine-month evaluation year, this publication was in draft form and under review. This effort could not be completed in EY03, and will continue as an oversight assistance effort for the OSM Indianapolis Field Office in EY04.

APPENDIX A:

These tables present data pertinent to mining operations and State and Federal regulatory activities within Indiana. They also summarize funding provided by OSM and Indiana staffing. Unless otherwise specified, the reporting period for the data contained in all tables is the same as the evaluation year. Additional data used by OSM in its evaluation of Indiana's performance is available for review in the evaluation files maintained by the Indianapolis OSM Office.

TABLE 1 – COAL PRODUCTION.....	T-1
TABLE 2 – INSPECTABLE UNITS.....	T-2
TABLE 3 – STATE PERMITTING ACTIVITY	T-3
TABLE 4 – OFF-SITE IMPACTS	T-4
TABLE 5 – ANNUAL STATE MINING AND RECLAMATION RESULTS	T-5
TABLE 6 – OPTIONAL (NOT USED)	
TABLE 7 – STATE BOND FORFEITURE ACTIVITY.....	T-7
TABLE 8 – INDIANA STAFFING.	T-8
TABLE 9 – FUNDS GRANTED TO INDIANA BY OSM	T-9

APPENDIX B:

This Appendix contains the Indiana Department of Natural Resources, Division of Reclamation comments on the draft Evaluation Report, which the IFO received on August 22, 2003. A photocopy of the State's comment letter follows this page.

The Field Office Director's disposition of the State's comments is presented below.

Disposition of Comments:

State comments 1, 3, 5, and 6 are editorial in nature, and the suggested changes have been made in this report.

Comment number 2, provides additional information, which has been incorporated into the narrative.

Comment number 4 consists of five separate parts.

- a. The information about total number of state inspections has been included on page 9.
- b. The recognition of Indiana's 94.1 percent compliance meeting a national goal has been included on page 9.
- c. The request to move the paragraph on citizen complaints from Part V. A. to Part VII, General Oversight Topic Reviews, has not been fulfilled. The subject of citizen complaints was not a general oversight topic this year, and although it is not usually mentioned in Part V.A., it is associated with off-site impacts. Nevertheless, that paragraph has been moved to the end of the off-site impact narrative and an explanation provided.
- d. The second paragraph on page 10 has been rewritten.
- e. The IFO considered it best to report off-site impacts by inspectable units instead of by permit to be consistent with Table 4, and OSM Directive REG-8.

Comment number 7 includes two issues. The first, about citizen complaints, is addressed above at 4 c. The second, suggesting that General Oversight Topic Reviews be divided into Title IV and Title V sections, was not acted on because the IFO would prefer to be consistent with past reporting format.

The blank page (comment number 8) was unintentional, and has been deleted.

Comments 9, 10, and 11 concerned tables not included in the report. These tables are optional and were intentionally not included in this report.

Regarding comment number 12, the IFO did receive the 8/20/03 e-mail, and the information contained therein has been incorporated in Table 2.

